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Since 1971, Greenpeace has been a leading voice of the environmental movement. We work throughout the worla to protect oceans and ancient forests, and to fight toxic pollution, genetic engineering, global warming and nuclear threats. Without compromise, Greenpeace takes on powerful political and corporate opposition to protect the future of our planet.

Greenpeace Response to Senate Energy & Commerce Committee Ouestions on Climate legislation

Never before has humanity been forced to grapple with such an immense environmental crisis. To avoid the worst impacts of global warming will require a sustained international effort to dramatically reduce fossil fuel use around the globe.

If the international community is going to act together to limit global warming, it needs to agree on a common goal. Scientific and environmental opinion confirms that global warming needs to be limited to less than 2 degrees Celsius (2°C or 3.5°F above preindustrial levels) and that the global warming should be reduced as fast as possible from this peak. The European Union formally set the goal of limiting global warming and we urge the United States to do the same. If we do not take immediate action to limit global warming to 2°C, the damage could be catastrophic and irreversible.

To have a reasonable chance of limiting global warming to 2°C, atmospheric greenhouse gas concentrations must be kept well below 450ppm in the long-term. A recent study found that if greenhouse gas concentrations were stabilized at 450ppm there is a roughly fifty-fifty chance of exceeding 2°C, and that only with concentrations of 400ppm would the chance of limiting warming to 2°C be considered likely. The higher the peak concentration of CO2 the lower will be the chance of meeting this target and of reducing atmospheric concentrations of CO2 to anything near 400ppm.^{2,3}

In order to meet this, or any target in the neighbourhood, the United States will likely need to reduce greenhouse gas emissions 80 percent by mid-century. Congress should begin the process immediately of setting up policies that will put the United States on track to achieve large reductions in global warming gasses. We believe, based upon years of extensive research and experience⁴, that this can be done most effectively and at the lowest cost with a combination of renewable energy and energy efficiency. We believe that the most effective policies will be designed to transition the U.S. economy away from depleting conventional resources toward the efficient use of renewable energy.

¹ Hansen, J. E. (2005). "A slippery slope: How much global warming constitutes

[&]quot;dangerous anthropogenic interference"?" Climatic Change 68(3): 269-279.

² Hare, W. L. and M. Meinshausen (2005). "How much warming are we committed to and how much can be avoided?" Climatic Change, accepted.

³ Meinshausen, M., W. L. Hare, et al. (2005). "Multi-gas emission pathways to meet climate targets." <u>Climatic Change</u> Accepted: 50.

⁴ http://www.energyblueprint.info/scenario.0.html

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Which sectors should the program cover?

The solutions to global warming must be economy wide. Any trading system, which will be a major part of that solution, should seek to include as large a percentage of our global warming gasses as possible. It also needs to be backed by strong national policies that are consistent with the goal of limiting global warming to 2° C.

www. greenpeaceusa. org The system should include all large global warming gas polluters, including the electricity sector. Ideally such a system would include the transportation sector and would work in concert with oil savings legislation, a greatly increased automobile fuel efficiency standards, and other mechanism designed to reduce oil consumption. The minimal option for a trading system would be to create an emission-trading program that is similar to the European Union trading system (ETS). Such a system would be a workable first step toward meeting a goal of a comprehensive plan to limit all global warming gasses in the United States.

The trading program must set aggressive targets for reductions and strict timetables for meeting the targets. The program should call for immediate stabilization of carbon dioxide emissions with reductions required in five to ten years consistent with the goals of the Regional Greenhouse Gas Initiative recently established in New England and the developing West Coast Governors' Global Warming Initiative.

It is essential that a national cap on global warming pollution be supported by a set of additional policies that help make those targets achievable and address global warming pollution in areas that are not covered by the trading program. These policies would include:

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- A national renewable portfolio standard
- An Increase of CAFE standards to at least 40mpg
- A national Efficiency Resource Standard
- Tax on gasoline, diesel and jet fuel
- Long-term extension of renewable energy and energy efficiency tax credits
- Ending of federal subsidies to fossil fuels and nuclear energy
- Updated building codes and incentives
- Promotion of smart growth and public transit
- Improved standards for appliances and electronics
- Promotion of sustainable offshore wind
- Triple funding for research and design for renewable energy and energy efficiency
- Government purchasing policies
- Zero energy home mandates



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To what degree should details be delegated?

It is reasonable to delegate the specifics as long as the goal of the program is clearly outlined. Greenpeace strongly believes that the goal of any program should be to keep global warming below 2°C. To have a reasonable chance of limiting global warming to 2°C, atmospheric greenhouse gas concentrations must be kept well below 450ppm in the long-term. A recent studies have found that if greenhouse gas concentrations were stabilized at 450ppm there is a roughly fifty-fifty chance of exceeding 2°C, and that only with concentrations of 400ppm would the chance of limiting warming to 2°C be considered likely. The higher the peak concentration of CO2 the lower will be the chance of meeting this target and of reducing atmospheric concentrations of CO2 to anything near 400ppm.^{5,6} We also believe that in order to achieve such a goal emissions must be cut 50 percent globally by mid-century and on the order of 80 percent in the United States.

Where should the programs requirements be imposed?

The regulation should be imposed where it can most accelerate the transition to a low carbon economy, while imposing the lowest costs to consumers.

How should credits be allocated?

The default should be that the polluter pays for the allowances, and as many of the allowances should be auctioned as possible with the revenue going to fund technological innovation, incentives for renewable energy and energy efficiency, subsidies for low income customers impacted by higher energy rates, transitional help for workers displaced by changing markets, and funding for climate change adaptation projects.

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Congress should not waste any further taxpayer resources on nuclear power. Nuclear energy is not safe, renewable or economical. Nuclear energy programs are used to develop weapons programs, destabilizing the world. The nuclear industry will benefit from the creation of a trading program. Congress should not further reward the industry by allocating any credits or directing any subsidies to the nuclear industry. Numerous studies have show that money spent on the nuclear industry would be much better spent on efficiency or renewable energy.

How should the cap be set?

To facilitate linkage with other cap-and-trade systems the United States will be required to set up a compliance regime that is similar to the international systems, especially the ETS, a relatively straightforward task. It will also require the adoption of limits and timetables that are comparable to the level of commitments that have been made by other nations,

⁵ Hare, W. L. and M. Meinshausen (2005). "How much warming are we committed to and how much can be avoided?" Climatic Change, accepted.

⁶ Meinshausen, M., W. L. Hare, et al. (2005). "Multi-gas emission pathways to meet climate targets." <u>Climatic Change</u> Accepted: 50.



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especially the European Union and Japan. In practical terms this would mean that the U.S. could not set up a system that included a price cap, extensive use of offsets or any other mechanism that undermined the integrity of the system, because it would undermine all the systems connected to it.

Where should the cap be set for different years?

Congress should establish a national goal of reducing greenhouse gas emissions 80 percent, as compared to 1990 levels, by 2050 and should establish reasonable interim targets.

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The U.S. should strive to reduce emissions 30 percent below current levels by 2020. The Climate Action Network has set a 30 percent reduction target (compared to 1990 levels) for the industrialized nations in the G8. Because the U.S. is over 15 percent above this target, according to the UNFCC, it will be difficult to meet this goal with domestic reductions, and would likely required a large international purchase of credits. The E.U. has suggested that a large purchase of international credits would be appropriate for the U.S., and has set a 30 percent reduction target for it's member countries. The UK also agreed to reduce emissions by as much as 32 percent from 1990 levels by 2020.

Which gasses should be covered?

The U.S. should regulate the Kyoto basket of gasses, and continue to regulate the emission of other non-Kyoto global warming gasses separately.

Should early action be credited?

Early action should not be credited, if early action is credited Congress should set up standards that ensure only actions that a clearly additional receive credit.

Should the program deploy a safety valve?

A market based program to limit global warming pollution from large emitters is a core tool for securing deep reductions in international global warming pollution. Any market-based program for large emitters must not include provisions that threaten the environmental integrity of the cap, other cost containment mechanisms that do not harm the integrity of the cap should be considered instead. Price caps and large reliance on offsets will not only harm the cap, but they will also foreclose trading with the international systems.

Should the program allow offsets, if so how?

If offsets are used, however, they should be limited and of high quality. It is essential that any offsets are real, verifiable, permanent, enforceable, and additional to baseline, and not delay transformative low-carbon investments by major emitters.

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If an auction or safety valve is used how should the money be used?

Legislation should start from the principle of polluter pays. Allowances will be worth billions of dollars each year, and their value will increase over time as the pollution cap declines, and thus should be distributed in a manner that avoids windfall profits/assets for polluters.

www. greenpeaceusa. org Allowances should be auctioned or otherwise distributed to achieve public benefits. Revenues generated from the auction should be used for climate related public purposes, such as reducing the cost of the program through energy efficiency and conservation, spurring technological innovation, greater investment in the low-carbon re-tooling of the U.S. economy, and facilitating adaptation of ecosystems to an altered climate.

Although there is strong evidence that action to limit global warming will reduce economic costs, congress should endeavor to mitigate the regressive impacts on low income communities. The transition to a clean, low-carbon energy future will create economic opportunities and jobs in numerous sectors while requiring shifts in the economy. The distribution of total benefits and costs among people and communities should be fair and just. Revenue from the auction of allowances should fund programs that provide displaced workers with both transitional income, benefits for their families, and tuition for training in alternative fields. Revenue from the auction of pollution allowances should also help cushion any energy price increases for low income Americans.

Should special features be used to encourage technical development?

Congress should focus any special efforts on the development of energy efficiency and conservation and the development of renewable energy technologies. Greenpeace recently completed an global analysis of solutions to climate change and found that carbon dioxide can be reduced 50 percent globally with energy efficiency and renewable energy alone. We have seen policies in Europe and Japan fuel rapid development of efficient and renewable technologies, and suggest that Congress strongly consider all efforts possible to encourage development of renewable energy and energy efficiency as important actions that can provide initial reductions, spur technology development, and enable the long-term success of an economy wide cap on global warming pollution.

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We should develop as many options to reduce global warming emissions as possible, and begin by deploying those that achieve the largest reductions most quickly and with the lowest costs and risk. Nuclear power today does not meet these criteria. Nuclear power continues to be plagued with cost, safety, nuclear proliferation and waste management concerns. As such, nuclear power should not receive allocation allowances or subsidies.



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Are their design elements that should be used to encourage high emitting developing countries to agree to limits on their greenhouse gas emissions?

The best way to ensure that American actions encourage comparable efforts is to negotiate such agreements within the UNFCCC and Kyoto Protocol system. The United States should rejoin this system as soon as possible during the second commitment period of the Kyoto Protocol, which starts in 2013.

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To facilitate those efforts it is essential that the U.S. system is compatible both technically and with respect to the nature of our effort. It appears that Annex 1 countries will be expected to reduce greenhouse gas emissions on the order of 20-30 percent by 2020 under the Kyoto System. They U.S. should make every effort to achieve reductions of this scale.

Once the United States has a seat at the table, it could encourage the development of new market mechanisms such as sectoral targets (eg power sector) with a no lose target architecture that would provide for credits to be sold into an international market once a target is achieved. Another idea that has merit are Sustainable Development Policies and Measures which could also be set up so as to generate credits for the international carbon market. The Flexible Mechanisms of the Kyoto Protocol provide important incentives for action in the developing world. In the first commitment period of the Kyoto Protocol (2008 – 2012), billions of dollars will flow through the CDM alone. This flow of money for carbon reduction projects will have a powerful impact in developing countries. In addition, a share of the proceeds generated by the Flexible Mechanisms will go into a fund that will pay for measures to alleviate climate change impacts in developing countries, further promoting cooperation by developing nations.

There is no reason that the United States could not create additional incentives through existing bilateral agreements or in other international talks. There are also promising country involvement. The United States could contribute actively to this process if it were

discussions going on internationally about new creative ways to facilitate developing to come to the table with a global warming plan that is consistent with the efforts of the world's developed countries.

It is also important to remember that the United States has existing obligations under Article 6 of the Framework Convention. These obligations include financial and technological support of developing country carbon intensity reduction efforts.

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Have voluntary actions worked. What can be learned from existing mandatory and voluntary programs?

Voluntary actions have not worked either domestically or internationally. The failure of the Framework Convention to reduce emissions resulted in the negotiation of the Kyoto Protocol, while the failure of domestic programs have resulted in a 15 percent increase in greenhouse gas emissions.



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How should a domestic program be integrated with UNFCC requirements, should developing country participation be conditional. How should action be timed relative to international efforts?

WWW. greenpeaceusa. orq An expanded global trading system would be the most powerful incentive to developing countries to broaden their participation in the international system and the U.S. should take the opportunity to strengthen developing world participation. It would be inappropriate, however, for the United States, a country with the largest historical contribution to climate change, to condition its action upon developing countries taking national caps. Attempts to do so will only set back efforts to broaden developing country participation in the global carbon market.

It is essential that the United States become a leader in the effort to slow climate change. The United States can do this by coming to the international table with strong goals that are consistent with the European Union goal of limiting global warming to 2°C. A clear commitment for the mid and longer term is necessary to assure the European Union, Japan and other Annex I countries that their actions under the Kyoto Protocol will be met by comparable American action and to strengthen the hand of negotiators seeking to broaden the international effort to developing nations under the Kyoto Protocol.

The best way to ensure that American actions encourage comparable efforts is to negotiate such agreements within the UNFCCC and Kyoto Protocol system. The United States should rejoin this system as soon as possible during the second commitment period of the Kyoto Protocol, which starts in 2013.

It is also important to show the world that the United States understands its responsibility to tackle global warming. While it is true that the impact of developing nations is growing relative to developed nations, it is important to recognize that the historic contribution from developed nations is much larger. It is also important to recognize that developing countries are taking strong action already to decarbonize their economies. China, for example, is reducing global warming gasses at a rate of four percent per year relative to its

economic growth, a rate that is more than double that of the United States. It would be a major mistake for the United States to set a target that allows significant

growth in the production of global warming gasses, and expect that action to produce anything positive beyond our borders. If the United States were to create a trading system that is not consistent with the targets set for the Annex I countries under the Kyoto Protocol, it will more likely erode international commitments to address climate change than galvanize any country to take significant action.

Furthermore, there is a necessary linkage between the level of emission reduction undertaken by developed countries and the level of action to be undertaken by developing countries seeking to reduce the growth in their emissions. The United States and other developed countries need to ensure that they are adopting no regrets measures as a matter or priority.

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The United States could take a lead in developing the architecture of new instruments under the Kyoto Protocol for the period beyond 2012, which would be critical to drawing in the large emitters in the developing world. A domestic trading system, with its demand for credits, would be a powerful attractor, if coupled with the kinds of ideas mentioned above.

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